

IN THE CLAIMS

Page 7, line 1, change "Patent Claims" to --What is claimed is:--.

Claims 1 – 12 CANCELED

13. (New) An illuminating and irradiating unit for ophthalmic instruments, comprising:

an illumination source;

means for generating specific illumination patterns and/or profiles; and

means for coupling light from the illumination source into the parallel beam path of the observation system of the ophthalmic instrument.

14. (New) The illuminating and irradiating unit according to claim 13 which has, in addition, a monitoring unit for monitoring the radiation dose, for recording the irradiation patterns, and for registering the irradiated positions.

15. (New) The illuminating and irradiating unit according to claim 13, wherein the monitoring unit has one or more interfaces for transferring data.

16. (New) The illuminating and irradiating unit according to claim 13, wherein the illumination source generates narrow-band light in the short-wavelength range.

17. (New) The illuminating and irradiating unit according to claim 16, wherein the illumination source generates narrow-band light around 365 nm.

18. (New) The illuminating and irradiating unit according to claim 13, wherein the illumination source generates narrow-band light in the long-wavelength range.

19. (New) The illuminating and irradiating unit according to claim 18, wherein the illumination source generates narrow-band light around 690 nm.

20. (New) The illuminating and irradiating unit according to claim 13, wherein optical filters, diaphragms and/or optoelectronic light modulators with a control unit are used as means for generating specific illumination patterns and/or profiles.

21. (New) The illuminating and irradiating unit according to claim 13, wherein a beamsplitter which is used for coupling in light from the illumination source simultaneously serves as a blocking filter to protect the observer from excessive levels of irradiation by the illumination light.

22. (New) The illuminating and irradiating unit according to claim 13, wherein the illumination source is not arranged within the illumination unit but rather as a separate structural component part and is connected to the means for generating specific illumination patterns and/or profiles by means of a light guide.

23. (New) The illuminating and irradiating unit according to claim 13, wherein an eyetracker unit is provided in addition for monitoring the orientation of the illumination patterns on the areas to be irradiated during irradiation and/or for tracking.

24. (New) The illuminating and irradiating unit according to claim 13, which is conceived as a modular unit for retrofit installation in the parallel beam path of an ophthalmic instrument.

25. (New) The illuminating and irradiating unit according to claim 13, which can be used in combination with subassemblies such as a wavefront measuring unit and/or a topography system and/or an eye axis length measurement device for different ophthalmic instruments.

26. (New) The illuminating and irradiating unit according to claim 13, which can be arranged in a shared housing with other subassemblies such as a wavefront measuring unit and/or a topography system and/or an eye axis length measuring device.